



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 8
999 18TH STREET - SUITE 500
DENVER, CO 80202-2466
<http://www.epa.gov/region08>

Ref: 8EPR-EP

Dennis R. Fewless, Director
Division of Water Quality
Environmental Health Section
North Dakota Department of Health
1200 Missouri Avenue
P.O. Box 5520
Bismarck, North Dakota 58506-5520

Re: Section 303(d) Total Maximum Daily
Load (TMDL) Waterbody List

Dear Mr. Fewless:

Thank you for your submittal of North Dakota's 1998 Clean Water Act Section 303(d) waterbody list. EPA has conducted a complete review of this waterbody list dated April 1, 1998 and supporting documentation and information. Based on this review, EPA has determined that North Dakota's 1998 list of water quality limited segments (WQLSs) still requiring TMDLs meets the requirements of Section 303(d) of the Clean Water Act ("CWA" or "the Act") and EPA's implementing regulations. Therefore, by this order, EPA hereby APPROVES North Dakota's Section 303(d) list. The statutory and regulatory requirements, and a summary of EPA's review of North Dakota's compliance with each requirement, are described in the enclosure.

EPA's approval of North Dakota's Section 303(d) list extends to all waterbodies on the list with the exception of those waters that are within Indian Country, as defined in 18 U.S.C. Section 1151. EPA is taking no action to approve or disapprove the State's list with respect to those waters at this time. EPA, or eligible Indian Tribes, as appropriate, will retain responsibilities under Section 303(d) for those waters.

The public participation process sponsored by North Dakota included a series of public notices published multiple times in eight daily newspapers as well as direct solicitation of comment from certain state, federal, and local entities.

The State has targeted twenty-one of the waters on the 1998 waterbody list for TMDL over the next biennium. Further, EPA has received North Dakota's long-term schedule for TMDL development for all waters on the 1998 list. We acknowledge and appreciate receipt of

this schedule. Further discussion of this schedule will be forthcoming in a separate letter to you in the near future.

The State of North Dakota has continued to provide a quality assessment of its waters. We appreciate the time and care your staff has taken in developing the §303(d) list of waters. In particular, we are especially thankful for the hard work from the members of your staff to put together a well organized and thorough document. We wish to continue our support in your efforts to develop TMDLs for the waters identified on the list.

Again, thank you for the efforts related to the excellent job of developing the §303(d) TMDL waterbody list for the 1998-2000 biennium. If you have questions on any of the above information, feel free to give me or Bruce Zander (303/312-6846) of my staff a call.

Sincerely,

Max H. Dodson,
Assistant Regional Administrator
Office of Ecosystems Protection and
Remediation

Enclosure

<p>Review of North Dakota's 1998 Section 303(d) Waterbody List</p>

*Attachment to July 24, 1998 letter from Max H. Dodson, Assistant Regional Administrator,
Office of Ecosystems Protection and Remediation, US EPA, Region VIII to Dennis Fewless,
Director
Division of Water Quality, North Dakota Department of Health*

Date of Transmittal Letter from State: March 31, 1998
Date of Receipt by EPA: April 1, 1998

Purpose

The purpose of this review document is to describe the rationale for EPA's approval of North Dakota's 1998 Section 303(d) waterbody list. The following sections identify those key elements to be included in the list submittal based on the Clean Water Act and EPA regulations (see 40 C.F.R. 130.7). EPA reviewed the methodology used by the State in developing the §303(d) list and the State's description of the data and information it considered. EPA's review of North Dakota's §303(d) list is based on EPA's analysis of whether the State reasonably considered existing and readily available water quality-related data and information and reasonably identified waters required to be listed.

Statutory and Regulatory Background

Section 303(d)(1) of the Act directs States to identify those waters within its jurisdiction for which effluent limitations required by Section 301(b)(1)(A) and (B) are not stringent enough to implement any applicable water quality standard, and to establish a priority ranking for such waters, taking into account the severity of the pollution and the uses to be made of such waters. The Section 303(d) listing requirement applies to waters impaired by point and/or nonpoint sources, pursuant to EPA's long-standing interpretation of Section 303(d).

EPA regulations provide that States do not need to list waters where the following controls are adequate to implement applicable standards: (1) technology-based effluent limitations required by the Act, (2) more stringent effluent limitations required by State or local authority, and (3) other pollution control requirements required by State, local, or federal authority. (See 40 C.F.R. 130.7(b)(1).)

In developing Section 303(d) lists, States are required to assemble and evaluate all existing and readily available water quality-related data and information, including, at a minimum, consideration of existing and readily available data and information about the following categories of waters: (1) waters identified as partially meeting or not meeting designated uses, or as threatened, in the State's most recent Section 305(b) report; (2) waters for which dilution calculations or predictive modeling indicate nonattainment of applicable standards; (3) waters for which water quality problems have been reported by governmental agencies, members of the public, or academic institutions; and (4) waters identified as impaired or threatened in any Section

319 nonpoint assessment submitted to EPA. (See 40 C.F.R. 130.7(b)(5).) In addition to these minimum categories, States are required to consider any other data and information that is existing and readily available. EPA's 1991 Guidance for Water Quality-Based Decisions describes categories of water quality-related data and information that may be existing and readily available. (See Guidance for Water Quality-Based Decisions: The TMDL Process, EPA Office of Water, 1991, Appendix C ("EPA's 1991 Guidance").) While States are required to evaluate all existing and readily available water quality-related data and information, States may decide to rely or not rely on particular data or information in determining whether to list particular waters.

In addition to requiring States to assemble and evaluate all existing and readily available water quality-related data and information, EPA regulations at 40 C.F.R. 130.7(b)(6) require States to include as part of their submissions to EPA documentation to support decisions to rely or not rely on particular data and information and decisions to list or not list waters. Such documentation needs to include, at a minimum, the following information: (1) a description of the methodology used to develop the list; (2) a description of the data and information used to identify waters; and (3) any other reasonable information requested by the Region.

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Review of North Dakota's Submission

A. Description of the methodology used to develop the list. (§130.7(b)(6)(i))

The North Dakota 1998 Section 303(d) waterbody list submittal dated April 1, 1998 included the following items:

- . a description of methodology used to develop the §303(d) waterbody list
- . a description of the long term TMDL development schedule
- . a description of the public review process
- . an identification of the lakes and reservoirs that are included on the 1998 §303(d) list (Table 1)
- . an identification of the rivers and streams that are included on the 1998 §303(d) list (Table 2)

EPA considered these items as well as the documents listed below in section G in reviewing North Dakota's §303(d) list.

North Dakota has achieved full consistency between its Section 303(d) waterbody list and its Section 305(b) report. The Section 305(b) report serves as the full integrator of all existing and readily available data and information. Based on design by the State, water quality assessments which serve as the basis for the Section 305(b) report likewise form the basis for the state's Section 303(d) waterbody list. The State's §305(b) report entitled North Dakota Water Quality Assessment 1994 - 1996 describes in more detail the methodology used in determining use impairment status of surface waters. There may be some waterbodies, however, that are not

on the §303(d) list that are still part of the "partially supporting" or "not supporting" categories in §305(b) since some waters have EPA-approved TMDLs for the pollutants causing impairment on these waters. In addition, the results of the §305(b) assessment work is encoded into the Waterbody Tracking System ("WBS") developed by EPA.

North Dakota properly listed waters with nonpoint sources causing or expected to cause impairment, consistent with Section 303(d) and EPA guidance. Section 303(d) lists are to include all WQLSs still needing TMDLs, regardless of whether the source of the impairment is a point and/or nonpoint source. EPA's long-standing interpretation is that Section 303(d) applies to waters impacted by point and/or nonpoint sources. This interpretation has been described in EPA guidance, most recently in a 1997 memorandum clarifying certain requirements for 1998 Section 303(d) lists. (See EPA's 1991 Guidance and the August 27, 1997, EPA guidance listed below.) In addition, this interpretation of Section 303(d) is described in detail in a May 23, 1997, memorandum from Geoffrey Grubbs, Director of the Assessment and Watershed Protection Division, EPA Office of Water, to the FACA Workgroup on Section 303(d) Listing Criteria. (See May 23, 1997 and August 8, 1997 references listed below.)

EPA has concluded that the methodology North Dakota used to develop the list is reasonable and consistent with national §303(d) regulations and guidelines.

B. Description of the data and information used to identify waters, including a description of the data and information used by the state as required by section 130.7(b)(5). (§130.7(b)(6)(ii))

The State Department of Health collects physical, chemical, and biological data at a number of ambient monitoring sites throughout the State. In addition, the USGS (US Geological Survey) maintains monitoring sites in the State. A significant number of other data are obtained through monitoring cooperative agreements with agencies such as the US Bureau of Reclamation and the Corps of Engineers, through international agreements, and through other arrangements with local conservation districts and water resource boards. All data obtained through these means were considered in developing the Section 303(d) waterbody list.

EPA has reviewed North Dakota's description of the data and information it considered for identifying waters on the §303(d) list. EPA concludes that the State properly assembled and evaluated all existing and readily available data and information, including data and information relating to the categories of waters specified in 40 C.F.R. 130.7(b)(5).

. Waters identified by the State in its most recent section 305(b) report as "partially meeting" or "not meeting" designated uses or as "threatened" (§130.7(b)(5)(i))

All waters identified in the North Dakota Section 305(b) report as "not supporting", "partially supporting", and "threatened" were considered for listing on the 1996 §303(d) list. As described above, there is full consistency between the Section 305(b) report and the Section 303(d) list except that some waters with EPA-approved TMDLs that are still not attaining water quality standards are not on the §303(d) list.

In developing its Section 303(d) list, North Dakota relied on both evaluated and monitoring assessments. Evaluated assessments are typically based on information other than biological, chemical, or physical field monitoring efforts. Evaluated assessments in North Dakota were based on information such as land use information, known locations of pollutant sources, spill or fish kill incidents, water quality information provided by local residents or resource managers, water quality monitoring data over five years old, and data extrapolated from adjacent waterbodies. Monitored assessments were based on physical, chemical, or biological data collected within the last five years. The physical and chemical monitoring data came primarily from the US Geological Survey and from the North Dakota Department of Health.

Special attention should be given to North Dakota's biological monitoring efforts. The State relies on biological monitoring as part of its information to make direct assessments of use impairment. Data include community-based structure and function of both fish and macroinvertebrates. Also, the State performs fish tissue analysis as part of its program. Again, this information was used in development of the §305(b) report and subsequently the §303(d) list.

. Waters for which dilution calculations or predictive models indicate nonattainment of applicable water quality standards (§130.7(b)(5)(ii))

Waters where the State had existing and readily available information regarding dilution calculations or predictive modeling results were considered for listing on the §303(d) list. One example is the Red River of the North where, for a certain section of the River, problems are anticipated based on modeling results.

. Waters for which water quality problems have been reported by local, state, or federal agencies; members of the public; or academic institutions (§130.7(b)(5)(iii))

The State solicited comments on its draft §303(d) list, but did not receive much input. Included in the State's submission are a discussion of the comments received and the State's responses. It should be noted, however, that through the years, the State has continued to obtain data and information from an array of local, state, and federal entities that has been used in its §305(b) and §303(d) assessments.

. Waters identified by the State as impaired or threatened in a nonpoint assessment submitted to EPA under section 319 of the CWA or in any updates of the assessment (§130.7(b)(5)(iv))

North Dakota has achieved consistency between its nonpoint source assessments and its §303(d) waterbody list. By design, North Dakota uses its §305(b) report to integrate all information and data, including information and data collected as part of its nonpoint source assessment efforts. Because of this, such nonpoint source information automatically serves as a basis for both the §305(b) report and §303(d) waterbody lists.

C. A rationale for any decision to not use any existing and readily available data and information for any one of the categories of waters as described in §130.7(b)(5) (§130.7(b)(6)(iii))

For purposes of developing a technically sound and defensible waterbody list, the State has developed over time, minimum requirements for defining "credible" data and information used in support of the §303(d) list. The State first critically applied such requirements in its 1996 §303(d) listing process. Not all data and information was used as a basis for including a waterbody on the §303(d) list. In particular, the State used data that are over seven years old. Further, if an assessment initially concluded a waterbody was impaired, the State listed the water only if that conclusion was verified with field data or other evidence, either from an evaluated assessment or monitored assessment as discussed above in section B.

EPA has reviewed the State's rationale for not using certain data and information and has found such rationale reasonable and sufficient for purposes of Section 303(d). EPA finds it reasonable to exclude data and information on the basis of data age and the qualitative nature of the data and information since this is consistent with EPA's national §305(b) reporting guidance (see September 1997 document listed below).

D. Any other reasonable information requested by Regional Administrator. (§130.7(b)(6)(iv))

According to EPA's regulations, each State must demonstrate good cause for not including a water or waters on the list upon request by the Regional Administrator. Information requested by EPA Region VIII during its review of the State's list included 1) a written explanation of the shifts in miles of impaired waters from the 1996 to the 1998 list, 2) an explanation of the State's prioritization and targeting criteria, and 3) an explanation for carrying forward certain targeted waters on the 1996 list to the 1998 list.

The State has provided responses to all the information requests from the Regional office during the course of the Region's review (see April 27, 1998 document listed below).

Also, it should be noted that the State delisted 15 waters from the 1996 list. Five waters

were delisted because TMDLs were completed; four waters delisted because of inaccuracies or errors in the original listing; seven waters delisted because of new information showing that the water quality standards were now being attained; and one water delisted based on the absence of either adequate evaluated assessment or monitored assessment information.

E. Prioritization of waters on the list taking into account the severity of the pollution and the uses to be made of such waters; the prioritization shall specifically include the identification of waters targeted for TMDL development in the next two years (§130.7(b)(4))

EPA regulations interpret the requirement in Section 303(d)(1)(A) of the Clean Water Act that States establish a priority ranking for listed waters. The regulations at 40 C.F.R. 130.7(b)(4) require States to prioritize waters on their Section 303(d) lists for TMDL development, and also to identify those WQLSs targeted for TMDL development in the next two years. In prioritizing and targeting waters, States must, at a minimum, take into account the severity of the pollution and the uses to be made of such waters. (See Section 303(d)(1)(A).) As long as these factors are taken into account, the Act provides that States establish priorities. States may consider other factors relevant to prioritizing waters for TMDL development, including immediate programmatic needs, vulnerability of particular waters as aquatic habitats, recreational, economic, and aesthetic importance of particular waters, degree of public interest and support, and state or national policies and priorities. (See 57 Fed. Reg. at 33040, 33045 (July 24, 1992), and EPA's April 1991 Guidance listed below.)

EPA reviewed the State's basis for prioritizing listed waters. The State used a high and low priority scheme, with the high priority waters also targeted for TMDL development over the biennium.

The factors the State took into account in prioritizing its list were severity of pollution and the uses which are impaired, the degree of public interest or support, the recreational, aesthetic and economic importance of the waterbody, the vulnerability or fragility of the waterbody, programmatic needs, and national policies and priorities identified by EPA.

EPA reviewed the State's identification of WQLS's targeted for TMDL development in the next two years and concludes that the targeted waters are appropriate for TMDL development in this time frame. The targeting of waters was based on the prioritization of the waterbody as well as programmatic requirements (e.g. anticipated timing of re-authorization of NPDES discharge permits).

EPA also concludes that the criteria used to prioritize are reasonable and within the discretion of the State under EPA guidance.

F. Identification of the pollutants causing or expected to cause violation of the applicable water quality standards (§130.7(b)(4))

The State identified the pollutants (when known) causing or expected to cause exceedences of the applicable water quality standards, including those pollutants that have no corresponding numeric criteria in the State standards (e.g. sediment). The State's identification of pollutants is found in columns entitled "WQ Variable of Concern" in both Tables 1 and 2.

G. Documents used in review of North Dakota's §303(d) waterbody submittal

The following list of documents were used directly or indirectly as a basis for EPA's review of the State's §303(d) waterbody list. This list is not meant to be an exhaustive list of all records, but to provide the primary documents the Region relied upon in making its decisions to approve the State's list.

December 28, 1978 Federal Register Notice, *Total Maximum Daily Loads Under Clean Water Act*, finalizing EPA's identification of pollutants suitable for TMDL calculations, 43 Fed. Reg. 60662

January 11, 1985 Federal Register Notice, *40 C.F.R. Parts 35 and 130, Water Quality Planning and Management: Final Rule*, 50 Fed. Reg. 1774

April 1991, "Guidance for Water Quality-Based Decisions: The TMDL Process," EPA 440/4-91-001.

July 24, 1992 Federal Register Notice, *40 C.F.R. Parts 122, 123, 130*, revision of regulation, 57 Fed. Reg. 33040

August 13, 1992 memorandum from Geoffrey Grubbs, Director, Assessment and Watershed Protection Division, Office of Water, EPA Headquarters, to EPA Water Quality Branch Chiefs, Regions I - X and TMDL Coordinators, Regions I - X, regarding "Supplemental Guidance on Section 303(d) Implementation."

October 30, 1992 memorandum from Geoffrey Grubbs, Director, Assessment and Watershed Protection Division, Office of Water, EPA Headquarters, to Water Quality Branch Chiefs, Regions I - X, regarding "Approval of 303(d) Lists, Promulgation Schedules/Procedures, Public Participation."

November 26, 1993 memorandum from Geoffrey Grubbs, Director, Assessment and Watershed Protection Division, Office of Water, EPA Headquarters, to Water Quality Branch Chiefs, Regions I - X, and TMDL Coordinators, Regions I - X, regarding "Guidance for 1994 Section 303(d) Lists."

40 C.F.R. Part 130 Water Quality Planning and Management

May 23, 1997 memorandum from Geoffrey H. Grubbs, Director, Assessment and Watershed

Protection Division, Headquarters, US EPA to FACA Workgroup on Section 303(d) Listing Criteria, regarding "Nonpoint Sources and Section 303(d) Listing Requirements."

July 22, 23; 1997 agenda and presentation notes from TMDL Workshop, EPA Region VIII State & Tribes (Denver, Colorado)

August 27, 1997 memorandum from Robert H. Wayland III, Director, Office Wetlands, Oceans, and Watershed, Office of Water, EPA Headquarters, to Water Division Directors, Regions I - X, and Directors, Great Water Body Programs, and Water Quality Branch chiefs, Regions I - X, regarding "National Clarifying Guidance For 1998 State and Territory Section 303(d) Listing Decisions."

September, 1997 guidance from Office of Water, Headquarters, US EPA regarding Guidelines for Preparation of the Comprehensive State Water Quality Assessments (305(b) Reports) and Electronic Updates: Supplement, EPA-841-B-97-002B

September 12, 1997 letter from Carol L. Campbell, Director, Ecosystems Protection Program, Office of Ecosystems Protection & Remediation, US EPA, Region VIII to Dennis Fewless, Director, Division of Water Quality, State Department of Health and Consolidated Laboratories regarding "Transmittal of TMDL Guidance."

January 27, 1998 presentation notes from Bruce Zander, US EPA, Region VIII from the Region VIII 305(b) Coordinators' Meeting entitled "Relationship Between Section 303(d) & Section 305(b)."

February 4, 1998 letter from Max H. Dodson, Assistant Regional Administrator, Office of Ecosystems Protection and Remediation, US EPA, Region VIII to J. David Holm, Director, Water Quality Control Division, Colorado Department of Public Health and Environment and Region VIII Water Quality Directors (including Dennis Fewless, Director, Division of Water Quality, North Dakota Department of Health) regarding "303(d) Listing Requirements; Expiring Permits."

March 31, 1998 letter from Dennis R. Fewless, Director, Division of Water Quality, North Dakota Department of Health to Bill Yellowtail, Regional Administrator, US Environmental Protection Agency, Region VIII regarding the transmittal of North Dakota's 1998 §303(d) waterbody list and supporting information.

April 27, 1998 letter from Michael J. Ell, Division of Water Quality, North Dakota Department of Health to Kathryn Hernandez, US EPA, Region VIII regarding further information on the State's §303(d) waterbody list.

April 30, 1998 letter from Michael J. Ell, Division of Water Quality, North Dakota Department of Health to Jill Minter, 305(b) Coordinator, US EPA, Region VIII regarding the transmittal of the

North Dakota Section 305(b) Report for the 1994 - 1996 biennium.

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